

# LOS ANGELES AIR FORCE BASE

## PLUG-IN ELECTRIC VEHICLE AND VEHICLE-TO-GRID DEMONSTRATION



### FREQUENTLY ASKED QUESTIONS

#### What is the Plug-in Electric Vehicle (PEV) program?

The PEV program is a joint effort between the Department of Defense (DoD), industry, academia, and State organizations to show how PEVs can provide power to the local utility grid and receive a credit against the DoD installation's utility bill.

#### What does V2G mean?

V2G, or "vehicle to grid," is the capability for a PEV to draw energy from the utility grid and discharge energy back to the grid. This is also referred to as "bi-directional charging."

#### Is this an Air Force-only initiative?

Los Angeles Air Force Base (LA AFB) is the first operational demonstration of V2G in the DoD. This is the pilot demonstration for a broader DoD PEV program, which includes the following Air Force and Army installations; Fort Hood, Joint Base Andrews, Joint Base McGuire-Dix-Lakehurst and Mountain View Army Reserve Center.

#### How many PEVs will be at LA AFB, and what types are they?

LA AFB will have 42 PEVs including; 19 Sedans, 5 pick-up trucks, 13 vans, 4 medium-duty trucks, and 1 bus.

#### How does this initiative support the Air Force's mission?

The addition of V2G capability will provide the Air Force installations with enhanced grid stability. We will also explore the potential for off-boarding power and vehicle reliability in an expeditionary environment. This demonstration will help the Air Force understand the capabilities and lifecycle costs of PEVs as they are integrated into the Service's fleet.

#### What is next for the PEV program?

The Air Force plans to expand the V2G demonstration to Joint Base Andrews, Maryland, and Joint Base McGuire-Dix-Lakehurst, New Jersey. We will continue to look for additional capabilities, such as utilizing used batteries as a form of on-base energy storage.

#### Is the Air Force looking at other alternative fuel vehicles?

The Air Force has more than 9,000 ethanol flex fuel vehicles and more than 50 biodiesel fuel stations on its installations. As other alternative fuel vehicles that meet our mission needs become available, we will investigate the benefit of integrating them in our fleet.

#### Does V2G provide any benefit to Airmen in a deployed location?

V2G can allow the vehicle batteries to be used as energy storage to work with stationary generators in a deployed location.

#### How much more do these vehicles cost compared to gas powered vehicles?

The PEVs used in this pilot are "made to order" and are not in general production. As the PEV market matures, the costs will be reduced. Combined with the V2G benefits, PEVs may become the more cost competitive option.

#### Can PEVs perform as well as gas-powered vehicles, particularly the trucks and bus?

The Air Force ensures mission always comes first. We coordinated with our vehicle management community to confirm that the vehicles selected have enough power and range.